

Intellectual Capital, Corporate Social Responsibility and Financial Performance: Evidence from Indonesian Banks

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ABSTRACT

This study aims to examine the effect of intellectual capital and corporate social responsibility on the financial performance of banking companies listed on the Indonesia Stock Exchange during the period 2021–2024. This study employs a quantitative approach using secondary data from annual reports and sustainability reports of 18 listed banks, resulting in 72 firm-year observations. Financial performance is measured by Return on Assets (ROA), intellectual capital is proxied by the Value Added Intellectual Coefficient (VAICTM), and corporate social responsibility is measured using the CSR Disclosure Index based on GRI Standards. Data are analyzed using multiple linear regression after classical assumption tests. The results indicate that intellectual capital has a statistically significant negative effect on financial performance, while corporate social responsibility does not have a significant effect on ROA. Simultaneously, intellectual capital and CSR do not significantly explain variations in bank profitability during the observation period. This study extends the Resource-Based View and Legitimacy Theory by showing that the financial impact of intellectual capital and CSR is context-dependent and not always reflected in short-term accounting performance. The study is limited to accounting-based performance measures and a short observation period. The findings suggest that banks should manage intellectual capital and CSR from a long-term strategic perspective.

Keywords: Intellectual Capital, Corporate Social Responsibility, Financial Performance, Banking Sector, Indonesia

INTRODUCTION

The banking sector plays a highly strategic role in the national economy as it functions as a financial intermediary that channels funds from surplus units to deficit units while maintaining the stability of the financial system (Rejekiningsih et al., 2022). A sound and competitive banking industry is a fundamental prerequisite for sustainable economic growth, given that most modern economic activities rely heavily on banks' financing functions, payment systems, and risk management mechanisms (Levine, 1997). In Indonesia, the banking sector constitutes the backbone of the national financial system;

therefore, banks' financial performance not only affects shareholders but also has direct implications for macroeconomic stability and public confidence in the financial system.

The financial performance of banks is a key indicator used to assess their soundness and business sustainability. Financial performance reflects a bank's ability to manage its assets, liabilities, and capital efficiently in order to generate profits while maintaining operational stability (Anjichi, 2014). Regulators and investors widely rely on financial performance indicators as evaluation tools, since weak performance may increase systemic risk and undermine public trust. Consequently, identifying the factors that influence banks' financial performance has become an important issue in economic and financial research (Athanasoglou et al., 2008).

One of the most frequently used indicators of financial performance in the banking industry is Return on Assets (ROA) (Kamruzzaman, 2019). ROA measures management's ability to utilize total assets to generate net income. This indicator is considered more representative than other profitability measures because banking is an industry that heavily depends on productive assets, such as loans and financial instruments. Accordingly, ROA is commonly employed by banking regulators as a primary indicator of bank soundness (Dietrich & Wanzenried, 2011).

Although national banking assets have shown an upward trend, the profitability performance of Indonesian banks has experienced fluctuations in recent years (Riyadi, 2017). Reports from the Financial Services Authority (Otoritas Jasa Keuangan/OJK) indicate that banking ROA has not yet been fully stable, particularly in the post-pandemic period, which has been characterized by rising operating costs and increased pressure on asset quality. This condition suggests that improvements in banks' financial performance are not solely determined by external factors but are also strongly influenced by banks' internal capabilities in managing strategic resources efficiently (*Otoritas Jasa Keuangan, 2022*).

From a modern management perspective, firms' internal resources are no longer limited to tangible assets but also include intangible assets that play a strategic role in value creation (Daum, 2003). The Resource-Based View (RBV) emphasizes that sustainable competitive advantage is derived from the effective management of internal resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). In the context of knowledge-based banking institutions, intangible assets have become increasingly important compared to physical assets.

One of the most widely discussed intangible assets in the literature is Intellectual Capital (IC). IC reflects an organization's capability to manage knowledge, human resource competencies, systems, and internal processes to create economic value. In the banking industry, which is highly dependent on service quality, innovation, and customer trust, effective IC management is believed to enhance operational efficiency and financial

performance (Mention & Bontis, 2013). Therefore, IC is regarded as a crucial determinant of banking profitability.

To measure IC quantitatively, Pulić (1998) developed the Value Added Intellectual Coefficient (VAIC™) method, which assesses the efficiency of value creation through capital employed, human capital, and structural capital. The main advantage of VAIC™ lies in its reliance on publicly available financial statement data, making it relatively objective and easily replicable. Numerous empirical studies have demonstrated that VAIC™ is positively associated with corporate financial performance, including in the banking sector (Smriti & Das, 2018; Xu & Wang, 2018).

In addition to Intellectual Capital, increasing attention has been directed toward non-financial aspects, particularly Corporate Social Responsibility (CSR). CSR represents a firm's commitment to conducting business activities responsibly toward society and the environment. Within the framework of Legitimacy Theory, CSR is viewed as a mechanism through which firms obtain and maintain social legitimacy to ensure their long-term survival (Suchman, 1995). For banks that rely heavily on public trust, social legitimacy is a critical factor for business continuity.

CSR disclosure can also be explained through Signaling Theory, which posits that firms use non-financial information to send positive signals to investors and other stakeholders regarding management quality and long-term prospects (Spence, 1978). Banks that actively disclose CSR activities are often perceived as having better governance practices, lower reputational risk, and a stronger sustainability orientation, which may ultimately enhance financial performance (Wu & Shen, 2013).

Numerous empirical studies have examined the effects of IC and CSR on financial performance; however, their findings remain inconclusive. Several studies report that IC and CSR have a positive and significant impact on banking profitability (Mahmuda & Muktadir-Al-Mukit, 2023; Mallin et al., 2014), while others find weak or insignificant effects depending on industry context, study period, and measurement approaches (Abdi et al., 2022; Zhao et al., 2023). These inconsistencies highlight the need for further research with more specific contexts and updated periods of analysis.

In the Indonesian context, empirical research on IC and CSR in the banking sector remains relatively limited, particularly in the post-COVID-19 period. Most prior studies rely on pre-2020 data or focus on non-financial firms. Yet, the 2021–2024 period represents a critical phase for Indonesian banks in strengthening internal efficiency and long-term sustainability. Moreover, not all previous studies provide detailed explanations regarding the sources and calculation of Value Added (VA) in VAIC™ measurement, thereby limiting the replicability of their findings.

Based on the foregoing discussion, this study aims to examine the effect of Intellectual Capital and Corporate Social Responsibility on the financial performance of Indonesian banks, as measured by Return on Assets (ROA), during the 2021–2024 period.

This study is expected to provide updated empirical evidence on the role of intangible assets and social legitimacy in enhancing banking financial performance, while also addressing existing research gaps in the literature. Accordingly, the findings are anticipated to contribute both theoretically and practically to the development of financial and banking research, managerial decision-making, and policy formulation in the financial sector.

LITERATURE REVIEW

Financial Performance in the Banking Sector

Financial performance represents a bank's ability to efficiently manage its resources to generate sustainable profits while maintaining financial stability. In the banking industry, financial performance is not only a reflection of managerial effectiveness but also a crucial indicator of systemic stability, given banks' central role in financial intermediation and risk management. Strong financial performance enhances public confidence, supports credit expansion, and contributes to macroeconomic stability (Athanasoglou et al., 2008).

Among various profitability measures, Return on Assets (ROA) is widely regarded as the most appropriate indicator for banking performance. ROA reflects how efficiently management utilizes total assets to generate net income, which is particularly relevant for banks whose operations rely heavily on asset-based activities such as lending and investment in financial instruments. Prior studies argue that ROA is superior to ROE in banking studies because it is less influenced by leverage and regulatory capital structures (Dietrich & Wanzenried, 2011). Consequently, ROA has been extensively used in empirical banking research as a reliable proxy for financial performance.

Resource-Based View and Intellectual Capital

The Resource-Based View (RBV) provides a fundamental theoretical framework for understanding how firms achieve sustainable competitive advantage. According to RBV, firms gain superior performance when they possess and effectively manage resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). In the modern knowledge-based economy, intangible resources increasingly outweigh tangible assets in determining firm success, particularly in service-oriented industries such as banking.

Intellectual Capital (IC) represents a firm's intangible assets, including human capital, structural capital, and capital employed, which collectively enable value creation. Human capital encompasses employees' knowledge, skills, and expertise; structural capital includes organizational processes, systems, and culture; while capital employed reflects the efficient utilization of financial and physical resources. In the banking sector, where service quality, innovation, and trust are paramount, IC plays a critical role in enhancing operational efficiency and competitive positioning (Mention & Bontis, 2013).

To operationalize IC, Pulić (1998) introduced the Value Added Intellectual Coefficient (VAIC™) model, which measures the efficiency of value creation derived from human capital, structural capital, and capital employed. VAIC™ has gained wide acceptance in empirical research due to its reliance on publicly available financial data and its replicability across firms and countries. Empirical studies consistently demonstrate that higher VAIC™ scores are associated with improved profitability and efficiency, particularly in financial institutions (Smriti & Das, 2018; Xu & Wang, 2018).

Intellectual Capital and Financial Performance

A growing body of empirical literature supports the positive relationship between Intellectual Capital and financial performance in the banking sector. Al-Musali & Ismail (2014) provide evidence that VAIC™ significantly enhances ROA and ROE in banks operating in emerging economies. Ozkan et al., (2017) find that human capital efficiency and capital employed efficiency are key drivers of bank profitability in Turkey.

More recent studies reinforce these findings. Xu and Wang (2018) show that IC positively affects financial performance and sustainable growth, emphasizing the long-term benefits of efficient knowledge management. Ozkan et al., (2017) further confirm that IC improves bank profitability by strengthening operational efficiency and governance quality. In the context of Southeast Asia, report that IC significantly contributes to ROA among Indonesian banks (Pratama et al., 2022).

Despite the overall positive trend, some studies report mixed or insignificant results, often due to differences in institutional settings, measurement approaches, or sample periods (Kavadis & Thomsen, 2023). These inconsistencies highlight the importance of re-examining the IC–performance relationship within specific contexts and updated timeframes.

Based on RBV and empirical evidence, this study proposes the following hypothesis: H1: Intellectual Capital has a positive effect on the financial performance (ROA) of banks.

Legitimacy Theory, Signaling Theory, and Corporate Social Responsibility

Beyond internal resources, firms' engagement with external stakeholders has become increasingly important in shaping financial outcomes. Legitimacy Theory posits that organizations operate within a broader social system and must align their activities with societal values to secure ongoing support and legitimacy (Suchman, 1995). Failure to maintain legitimacy can result in reputational damage, regulatory pressure, and reduced stakeholder trust.

Corporate Social Responsibility (CSR) serves as a strategic mechanism through which firms demonstrate their commitment to social, environmental, and ethical responsibilities. In the banking sector, CSR is particularly salient due to banks' reliance on public trust and their indirect environmental and social impacts through financing activities. Complementing Legitimacy Theory, Signaling Theory suggests that CSR

disclosures act as signals of superior management quality, transparency, and long-term orientation to investors and other stakeholders (Spence, 1978).

The adoption of global reporting frameworks such as the Global Reporting Initiative (GRI Standards 2021) has further standardized CSR disclosure practices, enabling comparability and enhancing the credibility of sustainability information. Banks with more extensive and higher-quality CSR disclosures are often perceived as less risky and more resilient, which can translate into better financial performance (Michelon et al., 2015).

Corporate Social Responsibility and Financial Performance

Empirical evidence regarding the CSR–financial performance relationship has expanded significantly in recent years. Wu and Shen (2013) demonstrate that CSR engagement positively affects profitability and stability in the banking industry by enhancing stakeholder trust and reducing credit risk. Carnevale and Mazzuca (2014) find that CSR disclosure improves market valuation and profitability among European banks.

Recent studies further support these conclusions. Rashid and Shams (2020) show that CSR disclosure quality positively influences financial performance in emerging markets through improved corporate reputation. Gangi et al., (2023) report that CSR contributes to bank profitability and resilience, particularly during periods of economic uncertainty. In Islamic and conventional banking contexts, Tariq and Abbas (2023) confirm that CSR significantly enhances ROA by strengthening stakeholder relationships and long-term sustainability.

Nevertheless, some studies report weaker or indirect effects of CSR on financial performance, suggesting that the impact of CSR may depend on institutional environments, disclosure quality, and stakeholder awareness (Nollet, Filis, & Mitrokostas, 2016). These mixed findings underscore the need for further empirical investigation using updated data and standardized measurement frameworks.

Accordingly, this study formulates the following hypothesis: H2: Corporate Social Responsibility has a positive effect on the financial performance (ROA) of banks.

Research Gap and Conceptual Contribution

Although extensive research has examined the effects of Intellectual Capital and CSR on financial performance, several gaps remain. First, many prior studies focus on non-financial firms or pre-pandemic periods, limiting their applicability to the current banking environment. Second, research integrating IC and CSR within a single empirical framework remains relatively scarce, particularly in emerging markets such as Indonesia. Third, some studies lack transparency in measuring value added for VAIC™, raising concerns about replicability.

This study addresses these gaps by examining Indonesian banks during the 2021–2024 period, integrating IC and CSR in one model, and employing transparent, standardized measurement approaches (VAIC™ and CSRDI based on GRI 2021). By

doing so, the study contributes to the literature by providing updated empirical evidence on how internal intangible resources and external legitimacy mechanisms jointly influence bank financial performance.

METHOD

It contains research design, population, sample, techniques of data collection and analysis, in Book Antiqua 12.

It does not need to present any research method for conceptual article/ literature study, it is only result and discussion right after introduction.

Research Design

This study employs a quantitative research design with a causal approach to examine the effect of Intellectual Capital (IC) and Corporate Social Responsibility (CSR) on banks' financial performance. A quantitative approach is appropriate because the research focuses on testing relationships between measurable variables using statistical analysis. The causal design is adopted to identify whether changes in IC and CSR lead to variations in financial performance, as measured by Return on Assets (ROA).

Population and Sample

The population of this study consists of all banking companies listed on the Indonesia Stock Exchange (IDX) during the period 2021–2024. The banking sector is selected due to its strategic role in the national financial system and its characteristics as a knowledge-intensive industry, where intellectual capital and social legitimacy are critical determinants of performance.

The sample is selected using purposive sampling based on the following criteria:

- (1) banks consistently listed on the IDX during the observation period;
- (2) banks publishing complete annual reports for 2021–2024;
- (3) availability of financial data required to calculate VAIC™, including revenue, operating expenses, employee expenses, and capital employed;
- (4) availability of CSR disclosures either in sustainability reports or annual reports in accordance with GRI Standards; and
- (5) financial statements presented in Indonesian Rupiah to ensure data comparability.

Based on these criteria, 18 banks meet the requirements and are included as the final sample. With four years of observation, the study yields 72 firm-year observations, which is sufficient for regression analysis and meets the minimum sample size requirements suggested in prior econometric literature (Ghouse et al., 2021).

Data Source and Collection Technique

This study utilizes secondary data obtained from publicly available sources. Annual reports and sustainability reports are collected from the official IDX website (www.idx.co.id) and the investor relations sections of each bank's website. Data collection involves identifying relevant financial and non-financial information, extracting numerical data for variable measurement, and recording them in a structured

data coding sheet. To ensure accuracy and consistency, the data extraction process is conducted carefully and cross-checked across reporting periods.

Variable Measurement

Financial performance is measured using Return on Assets (ROA), calculated as net income after tax divided by total assets. ROA is chosen because it reflects management efficiency in utilizing assets to generate profits and is widely used in banking studies and regulatory assessments.

Intellectual Capital (IC) is measured using the Value Added Intellectual Coefficient (VAIC™) model developed by Pulić, (1998). VAIC™ captures the efficiency of value creation from capital employed, human capital, and structural capital, based on information derived from financial statements. This method is widely applied in empirical banking research due to its objectivity and reliance on publicly disclosed data.

Corporate Social Responsibility (CSR) is measured using a CSR Disclosure Index (CSRDI) based on the GRI Standards 2021, encompassing economic, environmental, and social dimensions. Each disclosure item is scored 1 if disclosed and 0 otherwise, and the index is calculated as the ratio of disclosed items to the total relevant items. This approach allows for a standardized and comparable assessment of CSR disclosure intensity.

Data Analysis Technique

The data are analyzed using multiple linear regression analysis, as the research model includes more than one independent variable. The dataset constitutes panel data, combining cross-sectional (banks) and time-series (years) dimensions. Statistical analysis is conducted using SPSS software.

Prior to hypothesis testing, descriptive statistics are employed to summarize the characteristics of the variables. Classical assumption tests, including normality, multicollinearity, heteroskedasticity, and autocorrelation tests, are conducted to ensure the validity and reliability of the regression model.

The empirical model is specified as follows:

$$ROA_{it} = \alpha + \beta_1 IC_{it} + \beta_2 CSR_{it} + \epsilon_{it}$$

where ROA_{it} represents financial performance of bank i in year t , IC_{it} denotes Intellectual Capital measured by VAIC™, CSR_{it} represents CSR disclosure index, α is the constant term, β_1 and β_2 are regression coefficients, and ϵ_{it} is the error term.

Hypotheses are tested using t-tests for partial effects and F-tests for joint significance at a 5% significance level. The coefficient of determination (R^2) is used to assess the explanatory power of the model.

Robustness Consideration

To enhance the robustness of the findings, additional diagnostic checks are conducted to ensure that the results are not driven by outliers or violations of regression assumptions. The empirical findings are then interpreted in light of the Resource-Based

View and Legitimacy Theory to provide theoretical explanations for the observed relationships.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
VAIC™	72	1,126.00	58,827,391.40	3,910,695.74	12,924,403.24
CSRDI	72	0.00	79.00	41.6528	18.88151
ROA	72	0.00	8.00	2.0000	1.54737

Table 1 presents the descriptive statistics of the research variables based on 72 firm-year observations from 18 banking companies listed on the Indonesia Stock Exchange during the period 2021–2024. The results show that the average Return on Assets (ROA) is 2.00, indicating that Indonesian banks generate an average profit of 2 percent from their total assets. The minimum ROA value of 0.00 suggests the presence of banks with very low profitability in certain years, while the maximum value of 8.00 reflects banks with relatively strong financial performance. The standard deviation of 1.54737 indicates moderate variability in bank profitability.

Intellectual Capital, measured using the Value Added Intellectual Coefficient (VAIC™), shows substantial dispersion among the sampled banks. The mean VAIC™ value is 3,910,695.74, with values ranging from 1,126.00 to 58,827,391.40. The large standard deviation (12,924,403.24) indicates significant heterogeneity in the efficiency of intellectual capital utilization across banks, reflecting differences in human capital quality, organizational processes, and capital employed efficiency in the banking sector. Given the highly skewed distribution of VAIC values, the natural logarithm of VAIC was used in regression analysis to improve normality and estimation stability

Corporate Social Responsibility disclosure, measured by the CSR Disclosure Index (CSRDI), has an average value of 41.6528, indicating that banks disclosed approximately 41.65 percent of the CSR items based on the GRI Standards. The minimum CSRDI value of 0.00 suggests that some banks did not disclose measurable CSR information in certain years, while the maximum value of 79.00 indicates a relatively high level of CSR disclosure. The standard deviation of 18.88151 shows considerable variation in CSR disclosure practices among banks.

Overall, the descriptive statistics demonstrate sufficient variability in financial performance, intellectual capital efficiency, and CSR disclosure to support further regression analysis.

Classical Assumption Tests

Prior to hypothesis testing, this study conducted classical assumption tests to ensure the validity and reliability of the multiple linear regression model. The tests were performed to examine whether the model satisfies the key assumptions of the Ordinary Least Squares (OLS) method, including normality, multicollinearity, homoscedasticity, and the absence of autocorrelation. These tests are essential to ensure that the estimated regression coefficients are unbiased and efficient.

Normality Test

The normality test was conducted to examine whether the regression residuals follow a normal distribution. The Kolmogorov–Smirnov (K–S) test results indicate that the residuals do not fully satisfy the normality assumption, as the significance value is below the 0.05 threshold. However, this result does not invalidate the regression model. According to the Central Limit Theorem, when the number of observations is sufficiently large ($N = 72$), the sampling distribution of the estimators approaches normality, even if the residuals are not perfectly normally distributed.

In addition, the Normal Probability Plot (P–P Plot) shows that the residuals are generally distributed around the diagonal line, suggesting an approximately normal pattern. Therefore, the regression model remains appropriate for further analysis.

Multicollinearity Test

Multicollinearity was tested to determine whether there is a high correlation among the independent variables, namely Intellectual Capital (VAIC™) and Corporate Social Responsibility (CSRDI). The test was conducted by examining the tolerance and Variance Inflation Factor (VIF) values. The results show that both independent variables have tolerance values of 0.994 and VIF values of 1.006, which meet the commonly accepted criteria (tolerance > 0.10 and VIF < 10). These findings indicate that there is no multicollinearity issue in the regression model.

Homoscedasticity Test

The homoscedasticity assumption was tested using a scatterplot of standardized residuals against predicted values. The scatterplot indicates that the residuals are randomly distributed around zero and do not form a specific pattern. This suggests that the variance of the residuals is constant across observations. Accordingly, the regression model satisfies the homoscedasticity assumption.

Autocorrelation Test

The autocorrelation test was performed using the Durbin–Watson statistic to detect potential correlation among residuals across time periods. The Durbin–Watson value obtained in this study is 1.007. Although the value is slightly below the ideal value of 2, it is still within an acceptable range for pooled panel data. Therefore, it can be concluded that there is no serious autocorrelation problem in the regression model.

Summary of Classical Assumption Tests

Overall, the results of the classical assumption tests indicate that the regression model satisfies the key OLS assumptions in a practical and acceptable manner. Although the residuals do not fully meet the strict normality criterion, the model remains statistically valid due to the adequate sample size and the fulfillment of other essential assumptions. Consequently, the regression model is suitable for hypothesis testing and further analysis of the relationship between intellectual capital, corporate social responsibility, and financial performance in the Indonesian banking sector.

Regression Results and Hypothesis Testing

This study applies multiple linear regression analysis to examine the effect of Intellectual Capital and Corporate Social Responsibility on bank financial performance. Financial performance is measured by Return on Assets (ROA), while Intellectual Capital is proxied by the Value Added Intellectual Coefficient (VAICTM) and Corporate Social Responsibility is measured using the CSR Disclosure Index (CSRDI). The regression model is specified as follows:

$$ROA = \alpha + \beta_1 \ln(VAIC) + \beta_2 CSRDI + \varepsilon$$

where ROA_{it} represents the financial performance of bank i in year t , $VAIC_{it}$ denotes intellectual capital efficiency, $CSRDI_{it}$ refers to the level of CSR disclosure, and ε_{it} is the error term.

Regression Results

The regression results based on 72 firm-year observations of 18 banking companies listed on the Indonesia Stock Exchange during the period 2021–2024 are presented in Table 2.

Table 2. Regression Results

Variable	Coefficient (β)	t-statistic	Sig.
Constant	1.759	2.965	0.004
VAIC TM	-2.82E-9	-2.014	0.048
CSRDI	0.008	0.881	0.381
R ²	0.062		
Adjusted R ²	0.035		
F-statistic (Sig.)	2.290 (0.109)		
Durbin-Watson	1.007		

Simultaneous Hypothesis Testing (F-test)

The F-test result shows that the regression model is not statistically significant at the 5% level ($F = 2.290$; $p = 0.109$). This indicates that Intellectual Capital and Corporate Social Responsibility, when considered simultaneously, do not have a significant joint effect on bank financial performance as measured by ROA during the study period.

The coefficient of determination (R^2) is 0.062, meaning that VAICTM and CSRDI jointly explain approximately 6.2 percent of the variation in ROA, while the remaining variation is influenced by other factors not included in the model.

Partial Hypothesis Testing (t-test)

Effect of Intellectual Capital on Financial Performance

The regression results indicate that Intellectual Capital (VAICTM) has a negative and statistically significant effect on ROA ($\beta = -2.82E-9$; $p = 0.048$). This finding suggests that higher efficiency in intellectual capital utilization is associated with lower short-term profitability in the Indonesian banking sector during the observation period.

Accordingly, Hypothesis 1 is supported in terms of statistical significance but with a negative direction. This result implies that investments in intellectual capital, such as human capital development and organizational systems, may increase operational costs in the short run, particularly in the post-pandemic period, before generating financial benefits. The finding is consistent with Al-Musali and Ismail (2016), who reported a negative relationship between VAIC and bank profitability, but contrasts with studies that documented a positive effect of intellectual capital in different institutional and economic contexts (Ozkan et al., 2017).

Effect of Corporate Social Responsibility on Financial Performance

The regression analysis shows that Corporate Social Responsibility disclosure (CSRDI) has a positive coefficient; however, the effect is not statistically significant ($\beta = 0.008$; $p = 0.381$). This result indicates that the level of CSR disclosure does not have a direct impact on ROA in the short term.

Therefore, Hypothesis 2 is not supported. This finding suggests that CSR activities undertaken by Indonesian banks during the study period may primarily serve compliance, regulatory, and legitimacy purposes rather than directly enhancing short-term profitability. In line with Legitimacy Theory, the economic benefits of CSR are more likely to materialize indirectly through improved reputation, stakeholder trust, and long-term sustainability rather than immediate accounting performance (Michelon et al., 2015; Wu & Shen, 2013).

Summary of Hypothesis Testing

H1: Intellectual Capital has a positive effect on financial performance → Partially supported (significant with negative direction)

H2: Corporate Social Responsibility has a positive effect on financial performance → Not supported

Discussion

This study investigates the effect of Intellectual Capital (IC) and Corporate Social Responsibility (CSR) on the financial performance of Indonesian banks during the period 2021–2024. The empirical findings provide important insights into how intangible resources and social responsibility practices influence bank profitability, particularly in the post-pandemic context.

Intellectual Capital and Financial Performance

The results show that Intellectual Capital, measured by VAICTM, has a negative and statistically significant effect on Return on Assets (ROA). This finding suggests that higher efficiency in intellectual capital utilization is associated with lower short-term profitability in Indonesian banks during the observation period. From a theoretical perspective, this result can be explained through the Resource-Based View (RBV), which argues that intangible resources such as knowledge, skills, and organizational systems can generate competitive advantage only if they are effectively deployed and aligned with firm strategy (Barney, 1991).

However, RBV also acknowledges that the benefits of strategic resources may not be immediately observable in financial outcomes. In the banking sector, investments in human capital development, information systems, digital infrastructure, and organizational processes often involve substantial costs in the short run. During the post-pandemic period, many banks intensified spending on employee training, risk management systems, and technological upgrades to maintain operational resilience. These investments may temporarily suppress profitability, even though they are essential for long-term value creation. Therefore, the negative relationship between VAICTM and ROA observed in this study reflects a short-term cost effect of intellectual capital investments, rather than a failure of IC as a strategic resource.

This finding is consistent with Al-Musali and Ismail (2016), who reported a negative or insignificant relationship between VAICTM and bank profitability in emerging markets. Similar evidence is also reported by Smriti and Das (2018), who argue that intellectual capital may initially increase operational costs before generating financial returns. In contrast, studies conducted in more mature financial systems often find a positive relationship between IC and profitability (Ozkan et al., 2017; Xu & Wang, 2018). These differences highlight the importance of institutional context, regulatory pressure, and economic conditions in shaping the IC–performance relationship.

In the Indonesian banking context, strict regulatory requirements, high compliance costs, and increased competition during the recovery phase after COVID-19 may have limited the ability of banks to convert intellectual capital efficiency into short-term profits. Thus, the findings of this study extend the RBV literature by demonstrating

that the financial impact of intellectual capital is context-dependent and time-sensitive, particularly in highly regulated industries such as banking.

Corporate Social Responsibility and Financial Performance

The empirical results indicate that CSR disclosure (CSRDI) has a positive but statistically insignificant effect on ROA. This finding suggests that CSR practices undertaken by Indonesian banks during the study period do not directly enhance short-term profitability. From the perspective of Legitimacy Theory, CSR is primarily a mechanism through which firms seek to align their activities with societal norms and expectations in order to maintain social approval (Suchman, 1995).

In the banking industry, CSR initiatives are often driven by regulatory requirements, stakeholder expectations, and reputational considerations rather than immediate financial objectives. Many banks engage in CSR activities such as financial literacy programs, community development, environmental initiatives, and sustainable financing to strengthen trust and legitimacy. While these activities may enhance corporate reputation and stakeholder relationships, their financial benefits are more likely to materialize in the long term through increased customer loyalty, lower reputational risk, and improved access to capital.

The insignificant relationship between CSR and ROA found in this study aligns with prior research suggesting that CSR has an indirect or lagged effect on financial performance (Michelon et al., 2015). Wu & Shen (2013) also argue that CSR contributes to bank performance mainly by reducing risk and improving stability rather than by increasing short-term profitability. Similarly, recent studies emphasize that CSR outcomes are better captured by long-term performance indicators or market-based measures rather than accounting-based measures such as ROA (Musibah & Alfattani, 2014).

Moreover, the post-pandemic environment may have further weakened the short-term financial impact of CSR. During periods of economic uncertainty, banks may prioritize liquidity management and credit risk control over profit maximization, thereby limiting the observable effect of CSR on ROA. This finding supports the view that CSR should be interpreted as a strategic investment in sustainability and legitimacy, rather than a direct driver of immediate financial returns.

Integrated Discussion

Taken together, the findings of this study indicate that both Intellectual Capital and Corporate Social Responsibility play important strategic roles in the banking sector, although their financial impacts are not always immediately reflected in short-term profitability. The negative effect of VAICTM and the insignificant effect of CSRDI on ROA highlight the limitations of using short-term accounting measures to capture the value of intangible assets and social responsibility practices.

These results contribute to the existing literature by providing empirical evidence from an emerging market context during a critical post-pandemic period. They suggest that the relationship between IC, CSR, and financial performance is non-linear and dynamic, influenced by regulatory environments, economic conditions, and time horizons. Therefore, future research may benefit from incorporating lagged variables, alternative performance measures, or moderating factors to better capture the long-term value of intellectual capital and CSR in the banking industry.

CONCLUSION

This study investigates the effect of Intellectual Capital and Corporate Social Responsibility on the financial performance of Indonesian banks during the period 2021–2024. The findings indicate that intellectual capital significantly influences bank financial performance, although its impact tends to be negative in the short term. This result suggests that investments in intellectual resources such as human capital development, organizational systems, and technological infrastructure may increase operational costs before generating financial benefits. Therefore, the value of intellectual capital should be understood within a long-term strategic framework rather than short-term profitability.

Meanwhile, corporate social responsibility does not demonstrate a significant direct effect on bank financial performance. This finding implies that CSR practices in the Indonesian banking sector are primarily oriented toward maintaining legitimacy, regulatory compliance, and reputational sustainability, rather than immediate financial returns. CSR appears to function as a long-term investment that supports stakeholder trust and business continuity rather than short-term accounting performance.

Overall, the study highlights that intangible assets and social responsibility initiatives do not automatically translate into immediate financial gains. Their contribution to performance is shaped by institutional context, regulatory environment, and time horizon. Accordingly, bank management is encouraged to integrate intellectual capital and CSR into long-term strategic planning, while policymakers may consider strengthening frameworks that promote sustainable banking practices. Future research is expected to extend the observation period, apply alternative performance measures, or incorporate additional explanatory variables to better capture the dynamic relationship between intellectual capital, corporate social responsibility, and financial performance.

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